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The Expenditure Effects of Sunset Laws in State Governments

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THE EXPENDITURE EFFECTS OF SUNSET LAWS IN STATE GOVERNMENTS

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ABSTRACT

Abstract: Sunset laws are laws designed to limit the size of state government by providing a process whereby statutorily created programs, agencies and bureaus are reviewed cyclically and their effectiveness assessed. Possible sunset results include continuation of the status quo, a reorganization or consolidation with other state agencies or agency termination. These programs exist in 30 states and use four distinct approaches, reflecting the confusion associated with the purpose and effects of such programs. This paper utilizes state expenditure and employment data to isolate the effects of sunset laws in general and the effects of each of the four different versions of these laws. I find that states that utilize sunset programs reduce spending at the state level, while increasing the level of government services provided. This increase in the efficiency of providing government services appears to be from the oversight of bureaucrats by the legislature, rather than from closures of obsolete agencies, and is therefore most strongly associated with comprehensive sunset programs, which conduct a greater volume of reviews.

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INTRODUCTION:

There are many different mechanisms that have been devised over the last 40 years with the expressed purpose of limiting or controlling government spending at the state level. Examples of such legislative restraints include balanced budget rules, tax and expenditure limits, Governor term limits and line-item veto power, and the effectiveness of these laws has been widely studied[1]. Starting in 1976, in Colorado, a new mechanism appeared on the landscape; sunset laws. The paper attempts to determine the effectiveness of these laws in their stated purpose of controlling government spending.

Sunset laws first appeared on the political scene as the result of lobbying by the Colorado chapter of Common Cause, a citizen's advocacy group. The stated goal of these laws has been to promote "good government" by placing an expiration date on government agencies, boards, committees and commissions. As this expiration date nears, these governmental entities are subject to a review in which the bureaucrats at each entity are responsible for justifying their existence to the legislature in order to continue their existence. At the conclusion

[1] Abrams and Dougan (1986), Crain and Miller (1990), Endersby and Towle (1997), Besley and Case (2003)

of this review process the sunset boards, populated by state legislators, make recommendations on the future of the reviewed entity. Suggestions can range from a continuation of the status quo to some form of reorganization or consolidation to elimination of the program, agency or board in question. Sunset laws are unique in that their default position, in the absence of a sunset review, is the discontinuation of the entity.

Colorado was the first state to adopt sunset laws, but the idea was a politically popular one, spreading quickly to as many as 36 states by 1981. By 1981, the effectiveness of these laws at actually delivering the savings promised began to be called into question. In some states, few agencies were being retired and many questioned where the resources spent in conducting these reviews were worth the cost, given the lack of tangible results. As a result of this debate, the spread of sunset programs abated, and in that same year, North Carolina became the first state to "sunset" its sunset law, starting a trend that would see a dozen states drop their sunset laws by the beginning of the 1990s. From 1990 to today, the total number of states using Sunset laws has remained fairly constant, with a small increase in the past few years.

Today, the states that use sunset laws take four distinct approaches: comprehensive, regulatory, selective and discretionary review. ***Comprehensive***

review sunset states require all statutory agencies to be subject to a sunset review within a designated cycle. The length of the sunset cycle varies from state to state. Delaware and Ohio have the shortest cycle (4 years), while Texas has the longest (12 years). ***Regulatory review only*** sunset states focus exclusively on regulatory and licensing agencies and bureaus. States with ***selective*** or ***discretionary review*** sunset provisions seek to reduce the time and expense associated with sunset reviews by concentrating only on agencies selected through legislative or committee recommendations. Figure 1 provides a more complete look at the use of sunset provisions across the U.S. states over the past 30 years and Table 1 provides a comparison of the states were that using sunset in 1981 versus 2005.

Today, 30 states have sunset laws, but the debate surrounding their effectiveness remains. In this paper, I investigate the question of whether sunset laws affect government spending and the cost of providing government services. Using evidence from state government expenditures and employment data, I find that states that utilize comprehensive, regulatory or selective sunset programs generate lower levels of expenditures at the state level. At the same time, those states also offer a greater level of services – measured in terms of the number of full-time equivalent employees on the state payroll. The combination

of lower expenditures and higher levels of services provided suggests that the cost of providing government services in these states has decrease. The evidence suggests that these gains appear to be more closely related to the oversight of bureaucrats provided by the sunset process rather than from a larger volume of agency closures.

SUNSET LAWS:

The origin of the idea for sunset laws can be traced back to Thomas Jefferson, who said that "every law naturally expires every 19 years[2]" (which was considered to be a generation at that time), and to John Adams, whose Sedition Act of 1798 was written so that it expired once he left office.

Sunset laws at the state level were initially designed to apply to professional and occupational licensing organizations, advisory boards and commissions. As sunset laws grew in popularity, they quickly evolved, with the first change being that states began to apply the sunset concept to all statutory agencies. By the end of 1978, seven states adopted "comprehensive" sunset laws,[3] which require that all entities created by the legislature be subject to a sunset review once per review cycle.

[2] Mooney, pg. 2
[3] See Table 2 for more details about the specifics behind the original Sunset program

A typical sunset hearing requires the bureaucratic agency to invest a significant amount of time and resources into documenting the accomplishments of the agency since the last such review. Estimates of the time dedicated to preparing for these review range from a few hundred hours to several ***thousand*** hours for larger agencies[4]. The actual review process also consumes the time of the legislators on the review board, and is open to the public, allowing interested parties to become involved in the process. This likely subjects the process to additional lobbying from interested groups. Early criticism of sunset laws is divided between the potential wastefulness of having so much time dedicated to the process and the increased lobbying activity of special interest groups.

The sunset concept also can apply to specific pieces of legislation. For example, a ban on handguns can be written with an expiration date in it, in order to force a review of the statute after a given amount of time. Several states[5] allow such provisions for individual laws, despite not having an official sunset statute in place, and these clauses are not uncommon at the federal level as well. For the purposes of this study, these states are not considered to be sunset states.

[4] Lyons and Freeman, pg. 153

[5] California, Idaho, Michigan, Montana, Nevada, New Jersey, New York, Nevada, Ohio, Pennsylvania, Wisconsin, Virginia

Other legislative oversight vehicles are available to state governments which were designed to promote efficiency. These include tax and expenditure limits, line item veto, term limits, balanced budget amendments and more. Much research has been done regarding the effectiveness of such measures and most studies agree that such institutions do matter. Poterba (1997) and Besley and Case (2003) offer extensive reviews of this literature. Sunset laws are unique in that they have a "forcing mechanism," in the form of the termination dates, which compels the legislative body to act. If the legislative body shirks its duties under any of the traditional expenditure control mechanisms, the status quo is retained, and no oversight has taken place. Under sunset, if a review is not conducted, the default position is that the agency, laws or program in question expires. In other words, the status quo is altered, giving the affected party a strong incentive to ensure the review does take place.

LITERATURE REVIEW:

There is an extensive literature on the effects of legislative and congressional restraints and their effects on the level of spending in state government. But to date, none of this literature has included sunset laws in its analysis. What does exist regarding sunset laws typically was written during the early days of sunset

and by and large does not address the topic empirically, choosing instead to offer insights from anecdotes and survey responses. I will briefly review this coverage and then move into the literature on legislative and congressional restraints.

Adams and Sherman (1978) provide a positive assessment of the possibilities for sunset to provide more efficient government. However, the authors worked for Common Cause, the citizen's activist group influential in getting the first sunset laws introduced, so their enthusiasm is understandable. The purpose of the paper was clearly to spread the word about sunset laws and the ten "Sunset Principles," first laid out by Common Cause as enumerated in Table 2. Within these initial guidelines is an acknowledgement that sunset would need to evolve from its origins in order to be an effective tool and this has proven to be true. Overall, the focus of the paper is on promoting the sunset agenda, and its timing allowed for no data to be considered in its analysis.

Hamm and Robertson (1981) look at factors that affect the adoption of new legislative oversight methods like sunset and rule and regulation review. They find that factors like high legislative turnover and split control of the legislative and executive branches lead to greater adoption of both of these means of legislative oversight. Hamm and Robertson do not address the costs and benefits of the adoption of such measures, simply the likelihood that they are adopted.

Lyons and Freeman (1984) and Curry (1990) offer case studies of the sunset process within a specific state. Lyons and Freeman look at Tennessee, which uses a comprehensive sunset statute, and therefore reviews all statutory agencies in a 6-year cycle. Their empirical findings are limited to the response from a questionnaire sent to Tennessee legislators, but these results suggest that agency officials are "more conscious of legislative authority."[6] The sunset process is not seen by bureaucrats or legislators as an antagonistic one, but rather as increasing opportunities for bureaucrats and legislators to work together. Curry investigates sunset in Texas, which had a comprehensive sunset law[7] with a 12-year review cycle at the time of Curry's study (although it has since been modified to a selective statute). Curry offers no empirical support for his arguments, but through anecdotal evidence he offers a mildly positive assessment of sunset (despite his concerns about the impact of increased lobbying that accompanies the sunset program).

The most extensive survey available regarding sunset is by Kearney (1990), who looks at the sunset experience throughout the United States. Kearney finds that after a period of rapid adoption of sunset laws, the tide of public opinion apparently turned against sunset. This conclusion is drawn from the fact that no

[6] Lyons and Freeman, pg. 156
[7] With a few exceptions, like state colleges

additional states added sunset laws from the early 1980s to the time at which his paper was published, while several states retired their sunset entirely or modified their initial statutes during that period. Based on this trend, Kearney's conclusion is that sunset is an ineffective mechanism for limiting the size of state government. To this he adds anecdotal evidence of some of the odd results associated with sunset[8], but does not offer any empirical assessments of the costs and benefits of the sunset programs.

Other individuals have looked at sunset clauses on individual laws. An example of this is Mooney (2004) who discusses the use of sunset clauses by the Bush administration to ease the passage of controversial or tightly contested legislation. Recent examples of laws that got passed with sunset provisions include the Patriot Act (aspects set to expire in 2005 were renewed) and the Bush tax cuts (set to expire in 2010 and 2013). But experience indicates that these laws are unlikely to come off the books. In each of these examples, the sunset provisions were included to aid the passage of the initial law. For example, the Bush tax cut in 2003 would have been subject to a supermajority requirement of

[8] For example, as of Kearney's survey in 1990, Florida had terminated 90 agencies through Sunset, but created 104 new ones.

60 votes under the Byrd rule.[9] Senator Charles Grassley, a supporter of the proposed cuts, astutely attached a sunset provision that potentially would discontinue these tax cuts one day shy of 10 years. This removed the supermajority requirement of the Byrd rule and consequently the tax cuts passed 58-33. Within days of this passage, Republicans in the Senate introduced legislation to make these tax cuts permanent, as they had done in the early days of the Patriot Act. So the sunset provisions that assisted in the passage of these laws faced immediate challenges.[10] Mooney uses this to conclude that the presence of a sunset clause may increase the likelihood that a law is passed.

The literature on constitutional and legislative restraints attempts to assess the effect of barriers to spending (like tax and expenditure limits or balanced budget amendments) and alterations to the balance of power in state government (like the line item veto power or gubernatorial term limits) on state spending. Poterba (1997) attempts to consolidate all the evidence on balanced budget laws, both from the federal and state levels, and offers an extensive review of the literature regarding the effectiveness of these laws. While not every paper he examines comes to the same conclusion, Poterba concludes that these rules do

[9] Bills that affect government revenues beyond a 10 year timeframe are subject to a supermajority requirement in order to pass
[10] Mooney, pg 70

make a difference on the level and growth rates of spending in the states that use them, though not every program necessarily decreases spending.

One of the papers that Poterba cites which does not agree with Poterba's conclusion that these institutions matter is Abrams and Dougan (1986). They look at the effects of constitutional restraints like balanced budget rules, limits on spending and taxation, line-item veto and gubernatorial term limitations on spending at both the state and local levels. Following Becker (1983), Abrams and Dougan model a market where the equilibrium level of taxes and spending is established by competition from various pressure groups. In this equilibrium, the value of providing benefits to these groups comes in the form of support for the candidate who provides the service (or opposition to his opponent). The costs are in the need for increased spending, and therefore taxes, which will increase the incentive for opposition from those opposed to higher taxes.

If the various constitutional restraints on spending or taxation do nothing to affect the marginal benefits from providing government services or the marginal costs of raising the revenue required, they are attempting to enforce outcomes in this market that are deviations from the equilibrium outcome. With the market out of equilibrium, one should expect to find that individual actors will follow their individual incentives, leading the market back to the equilibrium levels of

taxes and spending. In other words, such restraints, if they do not alter the costs and benefits faced by the politicians in the market, should not lead a different outcome, like lower levels of spending and taxation.

Abrams and Dougan find that while gubernatorial term limits do appear to have a negative effect on spending by the state government, once local spending is included, this effect disappears. The other three constitutional restraints, including balanced budget amendments, do not appear to have any effect on the level on state spending.

Holtz-Eakin (1988) explores the effect of the Governor's ability to use a line-item veto on the size of state expenditures. The author acknowledges that the power to veto a part of a bill rather than the whole bill alters the relative power of the executive and legislative branches in a state, but he finds that the line-item veto does not have a significant effect on the size of state budgets. Holtz-Eakin uses a variety of dependent variables to proxy for the demand for public goods, but does not take into account other constitutional constraints on spending like balanced budget amendments, tax and expenditure limits and, of course, sunset laws. He does incorporate the distribution of power by political parties, since his theory on the changing relative power of the executive and legislative branches requires that the governor veto will hold.

Rowley, Shughart and Tollison (1988) follow an interest group approach to politics in analyzing deficit formations from McCormick and Tollison, where the bureaucratic organization is treated as an input in the production function of government transfer to interest groups. Politicians provide a brokering function in a market where the demanders of government services are the smaller, well organized groups who can effectively lobby for services and the suppliers are the larger, more diffuse groups who cannot effectively organize. They provide the transfers, but at a political cost for the brokers. Politicians therefore balance bargains against costs at the margin and establish a market for political wealth transfers.

Zax (1989) looks at the effect of citizen initiative and referendum power on the level of state spending. He finds that placing the power to effect policy in the hands of the citizenry though vehicles like initiative and referendum increases the level of spending by those state governments. This conclusion runs counter to Matsusaka (2004) who uses a cross-sectional approach on a much broader sample of data and concludes that initiative and referendum adds efficiency to the process of government, lowering combined expenditures from state and local government.

Crain and Miller (1990) also look to address the effects of various constitutional constraints on the growth in state spending. They attempt to deal with changes in the behavior of both the executive and legislative branches based on not only the various constraints they face, but potential interactions between these various constraints. For example, in a state where a binding constitutional balanced budget rule is in place, the line item veto becomes relatively less important. Crain and Miller also take a closer look at differences in particular constraints across states. Specifically, a rule like the line item veto will generate different outcomes in states where item-reduction is allowed than those that do not.[11] Using these enhanced definitions of numerous budgetary restrictions in an ordinary least squares regression on cross-sectional data, Crain and Miller find a significant negative effect on the growth of state spending to rules like item reduction veto and supermajority requirements for tax increase where many other papers results were either mixed or inconclusive.

Alt and Lowery (1994) also look at the role of fiscal institutions like restrictions on debt and limitations on revenue generation like supermajority voting rules for tax increases in the determination of state government budgets. They also consider the political party distribution within the legislative and

[11] Item reduction means that the governor is allowed to write in a number that is lower than the one suggested in the budget instead of rejecting the item outright.

executive branches and the effect of united and divided parties on the response to short term disruptions in expected tax revenues, and find these political factors to be significantly more important than any of the fiscal institutions. They conclude that the level of spending in a state depends on partisan preferences, past histories of spending and party control and other exogenous variables but do not find a significant effect from debt restrictions or supermajority voting requirements on their own.

Shadbegian (1996) looks at the effect of tax and expenditure limits (TEL) on the size and growth of state budgets. Shadbegian uses state and time fixed effects and a term that interacts a TEL dummy and per capita income in the state because most state tax and expenditure limits do not prohibit increases in spending, but instead they link growth in state government to growth in income within the state. He finds that the inclusion of this interactive term yields a strong negative effect of TEL on the growth of state government expenditures.

Endersby and Towle (1997) look at the impact of constitutional and legal controls on two measures of state expenditures; per capita spending and per capita debt accumulation. In addition to attempts to ascertain the effects of items like the line item veto and debt and deficit limitations, Endersby and Towle expand the analysis to include a political dimension. Since tools like the line

item veto certainly alter the balance of political power by adding to the power of the executive branch, the authors reason that the real effects from such restraints are likely to be affected by the level of conflict between the executive and legislative branches. They find that the restraints themselves have no significant effects on either per capita spending or debt, but that political variables, like a unified executive and legislative branch, do appear to have a significant negative impact on the level of debt in those states.

While the question they raise is an interesting and well taken one, Endersby and Towle use a very limited sample of data (just three budget cycles) and do not appear concerned with balanced budget amendments in drawing their conclusions.

Knight (2000) investigates the effects of supermajority voting requirements for tax increases, again using a panel data set from the U.S. States. He tries multiple specifications to address the endogeneity of the process by which the states that have adopted such laws make that decision. He finds that, counter-intuitively, pro-tax regimes are usually the ones that adopt supermajority voting requirements. He develops a model where moderates in the pro-tax party form an alliance with the anti-tax majority in order to set up barriers to the extreme pro-tax legislators in increasing taxes.

The result is that, despite the fact that states with such restrictions have the same tax rate as those that do not, once one accounts for the pro-tax nature of these states that have adopted these rules[12], there is a negative and significant effect on tax rates in states that do have these laws.

Another attempt to consolidate all of the research on constitutional and legislative restraints is Besley and Case (2003). They compile an extensive survey of the existing empirical work on such limitations and then utilizes a political framework in order to better assess the environment into which these various constraints enters. So in addition to the policy making institutions that many of the above works have concentrated on and that this paper will concentrate on, Besley and Case introduce electoral institutions, like who can run for office, who can vote and restrictions on the costs of voting, as well. They agree with Matsusaka's finding that initiative and referendum generates lower spending. Outgoing governor who are prevented from running again by the presence of a term limit are associated with lower expenditures, as they are lot as likely to endorse wasteful programs that serve a special interest necessary for reelection. Besley and Case's model also predict that fiscal institutions are likely to be moot in expenditure determination, as these rules are difficult to enforce and

[12] The majority of states that adopted a supermajority voting requirement did so under a Democratic controlled legislature or Governorship.

politicians are often quite resourceful about finding ways around the letter of the law. Like Abrams and Dougan, they find no effect from the line item veto. Non-binding limits on deficits are not surprisingly, ineffective. Besley and Case do find that tax and expenditure limits are positively associated with state spending levels, but that supermajority voting requirements tend to yield lower levels of spending.

THE EVIDENCE:

In order to test the effect of constitutional and legislative restraints on the size of state governments, much of the previous literature focuses on the effect on the expenditures of the governments that implement such measures.

Following Rowley, Shughart and Tollison, I envision a market where the bureaucrats are simply agents for the brokers (the politicians) and as such are merely an input in the production process for government services (transfers). To determine the effect of sunset, it is necessary to determine the effect of the adaption of a new "technology" into this production process on the price of these political goods. The adoption of any technology involves accepting a cost, with the expectation that this cost will be more than offset by the resulting efficiency offered by the innovation. If the costs outweigh the benefits, there is a decrease

in supply from the organization who adopted the new technology. The resulting increase in the price of the commodity decreases the equilibrium quantity in the market, but the effect on expenditures is determined by the elasticity of demand in the market. The opposite effects are expected if the benefits from the efficiency gained by the adoption of the new technology outweigh the costs of implementation. The equilibrium quantity of the good increases, and again the effect on expenditures is determined by the elasticity of demand.

Such is the case with sunset laws. There is no question that there are costs associated with these laws. These costs include some direct and obvious costs, like the cost of setting up the sunset review board and their support team. The Texas Sunset Advisory Commission acknowledges direct costs of $25 million from 1982 to 2007, but this only accounts for the administrative costs of running the commission. It does not take into account the time spent by legislators on sunset reviews or the time and resources spent by the agencies being reviewed on sunset reviews. Costs of this type would be highest in the states where the most reviews are conducted. So states with comprehensive review should face the highest costs from time and resources spent on reviews. Selective or discretionary states attempt to limit this type of expense by review only agencies

that are deemed to need this type of oversight. Those states should experience the lowest levels of these administrative costs and lost time.

Another criticism of sunset is that it "[puts] targeted agencies on notice and activated their latent lobbying power."[13] Agencies that could face sunset reviews will have an incentive to try to avoid the process, as it could conceivably result in restrictions of the typical operations of the agency or even the elimination of the agency. Those who enjoy the protection of the targeted agency will engage in typical rent seeking behavior in order to avoid this fate. Additionally, once the review process begins, there is certainly lobbying that occurs in an effort to influence the outcome. Sunset laws typically provide for the inclusion of the "public" into the process by soliciting input prior to the review and by allowing testimony during the review process.

Rent seeking behavior of this sort is wealth destroying, and represents a different type of cost than the ones described above. These lobbying costs are likely higher in states using selective or discretionary sunset, and these processes involve the extra step of deciding which agencies will be reviewed – which provides another margin upon which interested parties can lobby. In comprehensive and regulatory sunset states, no agencies or programs can avoid

[13] Kearney, pg. 50

the process. Lobbying certainly still occurs, in an effort to influence the eventual recommendations of the sunset board, but the scope of this lobbying is limited by the removal of the selection process.

What benefits can be expected from sunset reviews? The most obvious is the elimination or consolidation of boards, agencies or programs that have either become obsolete or in some other way demonstrated themselves to be inefficient. Again referring to statistics from the Texas Sunset Advisory Commission, they report a savings of over $750 million over their 25-year existence. But not every state reports the volume of closures and consolidations that Texas has experienced. Arizona reports no agency terminations between 1981 and 1985. Other states indicate that sunset has actually led to the *creation* of new agencies. Examples include Colorado, where a podiatry board was spun off from an existing medical board, and even Texas, which added the Board of Irrigation and a Water Commission as the result of sunset reviews.[14]

Sunset programs often continue in states even when few entities are being discontinued. Proponents of the system point to studies like those by Lyons and Freeman, Curry, and Kearney which indicate that feedback from the legislators about sunset is generally favorable. Even in states where few agencies actually

[14] Kearney, pg. 53

are dissolved, the lawmakers feel they have a greater ability to oversee the actions of these entities than they did without sunset reviews. There is a sense that there is greater accountability for the bureaucrats in these agencies if they realize that their actions must be justified every few years. So beyond the immediate fiscal impact, there appears to be evidence of benefits in the form of greater management of bureaucracies that might otherwise have gone unsupervised.

With an unknown change in the price of the provision of government services, simply looking at expenditures alone will not provide a clear picture of the effect of these laws. It is necessary to add a measure of the quantity of output in a state. To do this, I use the number of state employees as a proxy for the quantity of government services.

To begin, I look simply at the average amount of real per capita expenditures in states with sunset laws verses those that do not (Figure 2). States with sunset laws spend slightly less than those with sunset laws. This difference is not statistically significant, so may simply be the result of random variation. I then break the sunset states into their four subcategories, to look for differences associated with a particular type of sunset (Figure 3). Regulatory states have the highest average and discretionary states have the lowest, but again, the

differences between the states with the four types of sunset and the states without sunset are small, and lack statistical significance. This simple look at the data suggests that sunset laws do not have an impact on state expenditures.

MODEL:

In an effort to model what is occurring with Sunset Laws, it is necessary to first take a closer look at the costs and benefits on each side of the ledger.

The benefits from Sunset come from two possible sources. First there is the cost savings derived from discontinuing an agency. As described above, this is non-existent in some states and infrequent in others, there are cases where agencies are discontinued as a result of a sunset review. If we imagine a state's bureaucracy as having a backlog of such ineffective or obsolete agencies, one should expect that the majority of savings from this channel would be realized in the first review cycle, where such agencies would be uncovered and discontinued. While it is certainly possible that existing agencies could be justifiable in the first review cycle and then later become obsolete, these cases are certainly likely to be less common than any closures from the first time through.

The second avenue for savings from sunset reviews is savings from the improved management of resources by bureaucrats who now have to answer to

a sunset review board. Imagine these boards providing the same oversight function that a manager provides for her corporation through the process of annual employee reviews. Individuals whose actions are not periodically reviewed will be prone to shirking and to costly mismanagement of agency resources. Just as the manager in a corporate setting provides oversight to try to minimize this behavior, the sunset review boards provide an opportunity for the legislature to occupy the same role in overseeing the bureaucrats who run an agency. Agencies are often consolidated through the sunset review process and responsibilities shifted from one agency to another if deemed appropriate. Bureaucrats enter the review cycle understanding that they need to justify their own existence. The higher the budget for the agency, the higher the expectation for performance is set. So bureaucrats who might otherwise have few constraints on their spending now have an incentive to utilize resources more efficiently.

As for costs, the most obvious costs associated with these sunset reviews are the costs of running the sunset review agency, and the opportunity cost of time spent by both the bureaucrats and the legislators on the sunset review board. Both of these costs will be increasing as the number of reviews increase. Another important concern regarding these sunset reviews is that they "put

targeted agencies on notice and activated their latent lobbying power.[15]" These reviews are open to the public and in fact, they solicit feedback from affected and interested parties. The traditional sunset review process includes a public hearing at which public testimony is sought, and many states encourage members of the public to provide input to the sunset agency staff in their initial assessment of the agency. The costs associated with lobbying can also be subdivided. Every sunset review board will face pressure and potential rent seeking behavior from those who wish to protect their own interest. For example, a state Haircutters and Hairdressers Licensing Agency will receive support from its licensed member in an effort to prevent its dissolution. Additionally, in states where selective or discretionary sunset laws exist, the decision of whether or not to review an agency provides an additional margin upon which lobbyists will exert pressure.

Looking at the benefits that should be expected from the different types of Sunset, we find the following relationships:

Benefits from closures (B_{CL}):

[15] Kearney, pg. 50

Comprehensive review states should get the most benefits here as every agency undergoes a review during every review cycle. In theory, this will generate the most reviews and the most closures

Regulatory review states review every regulatory agency, but not every state agency. As a consequence these states conduct fewer reviews than the comprehensive states and should expect fewer agencies to be closed as a result.

Selective or Discretionary review states will have fewer reviews than the comprehensive review states, and could have more or less than the regulatory states, depending on how selective they actually are. But if the reviews are conducted strategically – as in agencies whose need is not clearly defined undergo reviews more frequently than agencies that are clearly not going to be discontinued (the Department of Education for example) – than it is possible that they could experience higher benefits from closures than the less strategic regulatory review states. We would not expect them to have more agency closures than the comprehensive states, as by definition, the comprehensive states will review every agency that the selective or discretionary states review. Therefore,

$$B_{CL}^{Comp} \geq B_{CL}^{S/D} > B_{CL}^{REG}.$$

In looking at the record of various states with respect to closures we typically see few closures, and what closures do occur tend to occur during the first review cycle. Table 3 shows the record of the Texas review board and it supports this belief. The Texas review cycle lasts 12 years. In the first 30 years of sunset in Texas, 33 agencies have been abolished outright – 23 of those 33 were in the first 12 year cycle.

Including a dummy for years included in the first sunset cycle indicates no significant difference in expenditures during this period when compared to other years (Table 7). This is compelling evidence that the gains which arise from sunset are not primarily driven by agency closures.

Benefits from oversight:

Given that we do not observe frequent agency closings – especially after the first sunset cycle, yet the utilization of sunset laws is as high today as it has been since its peak in the early 1980s, the benefits from oversight (B_{OS}) must be important.

Once again, the states using comprehensive sunset laws will get the greatest amount of savings from this channel as the behavior of every bureaucrat is constrained by the specter of an impending sunset review. States with

regulatory review will receive benefits, but from a subset of their agencies, so these benefits will be smaller, and states using selective or discretionary review will typically receive the fewest benefits from this channel, as they tend to review the fewest agencies. Therefore,

$$B_{OS}^{Comp} > B_{OS}^{REG} > B_{OS}^{S/D}.$$

Costs from sunset review board staffing and opportunity cost of time

Of course, these benefits do not exist in a vacuum. In order to access the high level of potential benefits associated with conducting a large number of sunset review, a state must incur a higher level of costs (C_T). The greater the number of reviews, the higher the cost. Therefore,

$$C_T^{Comp} > C_T^{REG} > C_T^{S/D}$$

Costs from Lobbying

Lobbying costs (C_L) will not be as closely tied to the volume of reviews, as states with selective or discretionary review create an additional margin upon which lobbyists can act; the inclusion of an agency in the review process. Lobbyists can exert influence at this point, as well as in the review process itself. Therefore,

$$C_L^{S/D} > C_L^{Comp} \geq C_L^{REG}.$$

Table 4 summarizes these relationships.

VARIABLES:

The dependent variables in my regressions are the real level of state government expenditures (in 2000 dollars[16]), the real level of state and local combined expenditures, the log of real state government expenditures and the number of state employees on the payroll (in full-time equivalents (FTE)).

Explanatory variables include demographic characteristics like income and population along with the presence of other institutions created to limit expenditures at the state government level like tax and expenditure limits, line-item veto power and initiative and referendum. In the details that follow, I will explain the controls used and their expected signs. The variable of interest are dummy variables for sunset and the four individual types of sunset programs.

Income – State personal income in billions of real (2000) dollars.

Wagner's Law, which suggests that government services are a luxury good (income elasticity of demand greater than 1), would imply that

[16] GDP deflator numbers were obtained from Economic History Services (http://eh.net/hmit/gdp)

demand for government services grows as income grows. This would yield a positive relationship between income and government expenditures. The level of wealth in a state is an extremely good predictor of the level of expenditures within that state. A simple regression of the level of personal income on the level of state government expenditures reveals a positive relationship with an r-squared of nearly .95. As a result, the r-squared values on the main regressions in this paper also very high.

Population –The level of population in a state in a given year. Previous research suggests that there are economies of scale in the production of government services, which would generate an inverse relationship between population and per capita expenditures.

Federal – Federal measures the amount of money received by a state from the federal government. Abrams and Dougan (1986), Shadbegian (1996), Holtz-Eakin (1988), Matsusaka (2004) all find a positive correlation between the level of Federal money available in a state and the level of state spending independent of the Federal money. The reasoning is that Federal grants will be a complement to state spending when they come in the form of a matching grant, where money is pledged in response to spending at the state level. These expenditures consequently have a lower

cost, and therefore lower value projects can be justified under these circumstances. Another possibility is that the Federal money acts as a substitute for state spending, which would generate a negative coefficient on this variable.

TEL – A dummy variable indicating the presence of tax and expenditure limits. Abrams and Dougan find no effect from tax and expenditure limits. Shadbegian finds a significant decrease in spending from the presence of tax and expenditure limits, but only when they are interacted with per capita income, as these limits are often tied to the level of growth in the state. Besley and Case find that such limits actually increase spending. Given the mixed results in the literature for tax and expenditure limits, no prediction is made as to the direction of the change in spending.

Line Item Veto – A dummy variable indicating that the governor has the ability to alter the level of spending associated with a bill. Holtz-Eakin finds that while the balance of power between the governor and the legislature is altered by the presence of a line-item veto, there is no significant effect on state level expenditures. Crain and Miller find a decrease in the growth of state spending when looking at states with item

reduction power. Abrams and Dougan, Endersby and Towle and Besley and Case find that line item veto has no effect.

Term Limits – A dummy variable indicating the presence of a term limitation preventing the governor from seeking reelection after a certain period in office. Only 1 state (Virginia) allows just a single term, and only 1 state (Utah) allows more than 2 terms, so this is simply an indicator of the presence of a constraint and does not account for these slight differences. Dougan and Abrams find that term limits appear to limit state spending, but only until local spending is added.

Shared budget – A dummy variable with a value of 1 in states where the budgetary process is shared by the executive and legislative branch. In these states a budget is prepared by both the governor and the legislature, as opposed to states where the creation of the budget happens in the legislature and is presented to the governor. Like the line item veto, this will affect the balance of power in state government.

Supermajority - A dummy variable indicating supermajority voting requirements for tax increases. Crain and Miller find a decrease in the growth in state spending from supermajority tax requirements. After for correcting for the endogenous selection of these rules by "high-tax

regimes", Knight also finds a negative effect on state spending from supermajority requirements. Besley and Case also find a significant negative association here.

Initiative and Referendum – A dummy variable indicating the use of initiative and referendum. Matsusaka finds that the use of initiative and referendum has a significant negative on state government expenditures. Over the last 30 years there has only been one change in the use of initiative and referendum (Rhode Island adopted its use in 1996). As a result, this variable is dropped from the two-way fixed effects regression, as insufficient variation exists within the studied time period.

Sunset – A dummy variable indicating the presence of sunset laws in the state for a given year. If sunset laws are a cost-effective way to reduce spending in state government, then we would expect a negative sign to this variable. If the time and money spent on these review is wasteful, then a positive sign can be expected.

Sunrise – Another development along with sunset laws was the implementation of "Sunrise" laws. Often agencies that were terminated one year would be re-instated the following year. Sunrise laws require that each agency proposed by the legislature must undergo a review to

justify the cost of its program before it begins operation. This practice began in Tennessee in 1977 and has since been added in 8 other states. Sunrise is a dummy variable indicating the presence of sunrise laws in a state in a given year. Sign may be positive or negative following similar logic to sunset laws.

Comprehensive – A dummy variable indicating the presence of comprehensive sunset review. Costs in terms of time spent by both legislators on the sunset board and the bureaucrats of the reviewed agency in providing evidence of their effectiveness are highest here, as the most reviews happen under this regime. Lobbying costs are likely lower here, as there is no possibility of avoiding the review through effective lobbying. If savings are generated from the oversight provided by the sunset review process, it would also be expected to be most effective in states where all bureaus, agencies and boards are subject to such oversight.

Regulatory – A dummy variable indicating the presence of sunset review for all regulatory agencies within a state. Expectations for these states are similar to those of comprehensive, but on a smaller scale. There will be lower costs from fewer reviews. Lobbying costs should be

similarly low, but if benefits are accruing from oversight there is consequently less potential benefit as fewer programs are subject to this level of review.

Selective – A dummy variable indicating a state that allows for selective implementation of sunset reviews. In these states, sunset reviews are concentrated on entities like occupational licensing and administrative agencies like highway, health and education departments.[17] The determination of an entity's sunset status is typically set upon the statutory creation of that entity. Selective states will undergo fewer sunset reviews than comprehensive sunset states, so face lower costs, but generate less oversight. They can generate a similar number of reviews as regulatory sunset states. The most likely difference between selective and regulatory is the potential for additional lobbying activity involving the decision to designate an entity as subject to sunset or not, and additional costs associated with this behavior.

Discretionary – A dummy variable indicating the presence of sunset review on a discretionary basis. The sunset review board in these states has the ability to select which entities will face review. Lobbying costs are

[17] Hamm and Robertson, pg. 140

consequently highest in these states. The number of reviews conducted is lower than in comprehensive states, but could be similar to either regulatory or selective.

RESULTS:

To empirically test the effect of sunset laws on the size of state governments, I employ 2 different measures of government size. For Models I and II, the dependent variable is the real level of state and local government expenditures[18] and for Models III and IV, the dependent variable is the real level of state government expenditures (excluding local expenditures). The behavior of states varies with respect to spending at the state verses the local level. While some states might require certain spending (like public education) to be included in the local state budget numbers, others will address this at the state level. Because of this difference in approach, I felt it appropriate to investigate it from both perspectives to determine if there were significant changes to my results. Models I through IV use year fixed effects, but an f-test to determine the appropriateness of utilizing state fixed effects in addition to the year effects failed to reject the

[18] In Year 2000 dollars

hypothesis that the state effects were statistically different from one another, so state fixed effects are not employed.

The results I report exclude data from Alaska, as the Alaskan government receives significant revenues from severance taxes on oil, and consequently their per capita expenditures are far out of line with per capita expenditure levels in other states[19] for reasons that have nothing to do with their use of sunset laws.

Models I and III treat all sunset programs equally in an attempt to determine a general effect of sunset laws, while Model II and IV break states with sunset laws into the their subtypes; comprehensive, regulatory, selective and discretionary.

In all 4 models, personal income numbers are as expected: the coefficient on personal income is positive and significant, indicating that government services are a luxury good. The coefficient on population is negative and significant for all four models, reflecting economies of scale in the provision of government services. Federal money appears to be a complement to state spending when state effects are ignored, as states with higher levels of Federal Funds available to them also spend more of their own money.

[19] For example, Alaska's per capita expenditures vary from 3 to 31 ***times*** that of Alabama.

Looking to the other constraints on state spending used by the states, like much of the literature, I also find a mixed bag of results. Tax and expenditure limits do not appear to have an effect in Models I and II where the state and local spending is comingled, but once I look only at state level expenditures, these limits provide a negative coefficient which is significant at the 5% level for Model III, but remains insignificant in Model IV. Line item veto power is similarly insignificant in Models I and II, but once the focus turned to state level spending, there appears to a positive influence on the level of state expenditures. This result runs contrary to the existing literature, which finds wither no effect or a slightly negative effect of line item vetoes. Term limits and shared budgetary power both exert a significant negative influence on state government expenditures in all four models. Supermajority voting requirements appear to have a large, positive influence on the level of state and local spending, but this effect disappears once the local spending is eliminated from consideration. Following the conclusion of Matsusaka, I find that initiative and referendum does appear to offer savings at the state level.

Models I and III focus on sunsets as a generic entity, ignoring the differences of the different programs utilized across the country. Controlling for all of the above variable, both models indicate a negative impact from the programs, and

when looking only at state level expenditures, this effect is statistically significant.

In models II and IV, sunset programs are separated into their subcategories; comprehensive, regulatory, selective and discretionary. Breaking the sunset programs down to look at the different types of program allows an examination of differences based on the different costs and benefits associated with these different types of reviews. Model II offers some weak evidence that the comprehensive and selective programs have measurable effects on state spending levels.

In Model IV, comprehensive, regulatory and selective sunset programs all appear to offer significant savings at the state level. The question then becomes is this savings from the closure of agencies or from the oversight that is provided on an on-going basis. Anecdotal evidence from early sunset investigations and from the data from the Texas sunset commission appear to indicate that closures are either rare or they are concentrated in the early years of sunset. Given the results of Models III and IV, this would imply that the results of sunset come from ongoing oversight rather than simply from closures.

To test this proposition, I utilize a dummy variable for years that fall within a state's first sunset review cycle. The number of years designated as the sunset

review cycle varies wildly, from as few as four years (Alabama, Delaware, Ohio) to as many as 15 (Colorado recently expanded the review cycle to 15 years). This dummy variable is interacted with the sunset indicator in Model V and the four sunset type indictors in Model VI. If the gains from sunset are from agency closure, the negative impact of sunset laws should be evident and possibly even amplified in these years. If the effect decreases or even disappears, this offers strong evidence for the oversight hypothesis, as this effect would continued into later cycles, and could possibly even be at its weakest in the first cycle, as the oversight technically has not even occurred yet (although the *threat* of oversight certainly exists at this point). Additionally, we should expect to see no significant changes to any of the coefficients on the non-sunset independent variables

Table 7 provides the results. As expected, by concentrating on just the first sunset cycle, none of the non-sunset coefficients are disturbed in any significant manner. In Model V, notice that while the coefficient on states with sunset laws remains negative, the effect is noticeably weaker and it loses its statistical significance. So the savings of sunset programs in general are not concentrated in the early clean-up years. In Model VI, the comprehensive sunset programs continue to offer savings at a comparable rate as in Model IV. Notice the effects

on the other three vehicles. No measurable effects exist, which is again consistent with the hypothesis that savings from sunset laws are not closely associated with agency closures, but rather should be attributed to the increased oversight and management that these programs offer.

So if sunset laws are offering savings at the state expenditure level the question then becomes; is this savings from a reduction in the level of government services, or is it from a decrease in the cost of providing these services?

The quantity of services provided by the government is certainly a subjective concept, but in an effect to quantify it, I use the number of employees in state government (in full-time equivalents (FTE)) as the dependent variable. Given that states using sunset laws are spending less than the states that are not, if the savings is coming from a reduction in the level of services, one would expect to see fewer employees utilized by the state. If the sunset states are benefitting from efficiency generated from the oversight that sunset provides, then it is entirely possible that these states would actually be employing more employees and providing more services[20].

[20] The number of additional employees directly associated with providing sunset reviews is likely trivial, so it is unlikely that the results displayed here reflect increased employment that directly

First a few non-sunset related observations from table 8. Population and federal funds are both strongly associated with more employees in state government and this should meet with expectations. Bigger states clearly require more services, and more federal funds injected into the budget allows for more state government employees as well. We found earlier that states that use line item vetoes spend more, and here we see that they also provide more services. While states with term limits and initiative and referendum may be achieving their savings through a reduction in the level of services, as reflected in the significant decrease in the number of employees in these states, all else equal. As for sunset, the story is not quite as cut and dry. While the coefficient associated with the number of state employees is positive for sunset states, the result is not a strong one. Comprehensive and regulatory sunset states offer lower expenditures with a higher level of services, but there is no clear effect in terms of the level of services for the selective and discretionary states.

When considering institutions like tax and expenditure limits and supermajority voting rules along with sunset laws in explaining the level of state expenditures, there is the possibility of endogeneity in the resulting analysis. If any of the independent variables used in the above analysis predict the use of

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results from sunset programs. Even if it did, given that the expenditures are lower in these states, this would have to be considered an acceptable cost.

sunset laws within a given state, then the results may be biased due to this endogeneity. The following section uses a hazard model to attempt to identify conditions that make it more likely that a given state will adopt sunset laws.

WHICH STATES CHOOSE SUNSET?

The introduction of sunset laws in 1976 was an innovation, and like any innovation other firms in the industry will try to adopt this innovation while simultaneously looking to improve upon the original idea. All innovations have costs and benefits to their implementation and the more efficiency provided by an innovation the more rapidly that idea will disperse and be adopted. In the case of sunset laws, the dispersion was initially very rapid – 28 states adopted Colorado's innovation by the next legislative cycle – but was not universal. At its peak, sunset was used in 36 of the 50 states. The lack of universal acceptance stems from questions about how much efficiency is gained through sunset when weighed against the costs and is the subject of the previous chapter. Another interesting question about this innovation relates to the dispersion of the idea. Why did some states adopt sunset, while others decided not to? Is it possible to identify characteristics that make a state more or less likely to adopt a sunset law?

The dispersion of ideas has been investigated in a wide variety of disciplines. Theories on diffusion have their origin in the physical sciences. For a long time, scientists sought to explain the factors that led to the spread of a biological agent like a virus. The spread of genetic material has also been carefully studied. From these origins, diffusion theory has expanded into the social sciences. From the spread of cultural norms to the spread of innovations, it is widely believed that a similar mechanism drives the diffusion of all of these things.

The common thread through much of this literature is that of a physical proximity. To catch a cold, you need to be near the carrier of the virus. There is an obvious physical component to the spread of genetic materials – it is more likely to occur with neighboring societies. But also with societies with whom one might have contact.

Even the spread of ideas (cultural norms, religion, innovation) initially was dependent on the physical "closeness" of two entities. But with advances in communication, it is no longer necessary to live in a nearby town to share the idea/innovation of another. Analyses of the dissemination of ideas, both in industry and in government, concentrates less on proximity and more on economic, political and sociodemographic characteristics.

A few examples:

Economic: Government services are considered to be a luxury good, and typically the greater the wealth of a state, the higher the demand for government services in that state. I will initially employ both per capita income and the level of state expenditures in these regression, but concerns about multicollinearity will lead me to use just per capita income for the bulk of the study.

Political: The use of other institutions designed to limit expenditures at the state level is likely to indicate a high degree of sensitivity to state government expenditures and one would suspect these states would be more likely to implement sunset laws. I look at term limits, line item veto, tax and expenditure limits, supermajority voting requirements and initiative and referendum. Since several of the tools are used consistently by individual states over time, the lack of variation in the sample leads to problems in the analysis and I combine the dummy variables associated with each of these into a single index. This index simply counts up the number of different expenditure control measures in existence in a given state and provides a number from zero to five based on this information.

Sociodemographic: One only additional demographic variable I use is population density in an attempt to measure the degree of urbanization in a given state. Urbanization is often associated with a higher level of innovation in both private industry and government, so states with higher population densities are expected to implement an innovation like sunset laws more quickly. Additionally I look to see if one particular political party favors the adoption of sunset laws over another. Sunset proponents promote sunset as a non-partisan measure, so I have no prior belief regarding which party is more likely to adopt sunset laws. Several studies have also looked at the implementation of new laws when the legislature is unified (both house and senate are controlled by the same party), finding that it is easier for an innovation to be accepted under such circumstances.

Additionally I look at a measure of proximity. I measure proximity to sunset laws in two ways – miles between the state's capital city and capital city of the nearest sunset state, and the percent of state borders that touch a sunset state. Given the ease of communication, and vehicles like state budget officer associations, I do not expect proximity to be a major driver of the adoption of sunset.

In this section, I will attempt to identify which characteristics made states more likely to adopt a sunset program. In this inquiry it will be important to consider the timing of the decision as well as the decision itself. As indicated above, numerous states adopted sunset programs in the legislative cycle following their introduction, while others waited for an additional cycle or two. After a long period when sunset programs were more likely to be discontinued than implemented, recent years have produced an increase in the popularity of sunset laws, and some states have reinstituted retired programs, and a few have even turned to sunset after more than two decades of deciding against them.

HAZARD RESULTS:

To begin I ran a set of hazard regressions to determine if any of my explanatory variables were in fact driving the adoption of sunset laws within particular states. Table 9 offers the first set of results. The dependent variable in all of the regressions will be a dummy variable on the presence of sunset laws. Once a state adopts a sunset law, they are not eligible to add sunset in the following period, so further observations from this state are truncated. Each model contains a measure of geographic closeness to other sunset states –

measured as the distance between state capitals.[21] As you can see, this initial approach lacks explanatory power for virtually every variable. Using various combinations in an attempt to determine if political party or the unity of the legislature or the legislature and governor fails to uncover a statistically significant relationship. There is some slight evidence that the presence of sunset laws in nearby states leads to a higher likelihood of adopting sunset. But given the lack of explanatory of the rest of these specifications, this relationship must be taken lightly at this point.

Table 10 contains the same basic regressions, but with expenditures omitted as they are strongly correlated with per capita income, causing some concern regarding multicollinearity. The strength of the results improves only marginally from this change. The presence of term limits has a consistent, positive impact on the likelihood of adopting sunset, and is significant at the 10% level in Models 1 and 4. Sunset laws are also more likely to be adopted in wealthy states.

But there are still collinearity problems stemming from the lack of variation in the use of many of the other institutions which attempt to control state government expenditures (term limits, tax and expenditure limits, supermajority

[21] These regressions were also run using the percentage of states with shared border which had sunset in place (following Crain, 1966), but the results were even weaker.

voting rules, Initiative and referendum). In table 11, I use a single variable for the presence of such institutions, where the value ranges from zero to five, representing the number of different institutions used. Since the general hypothesis for the inclusion of these variables is that a population that has adopted innovations designed to constrain the spending of the state government before will be more likely to do so again with sunset, these seems to be a reasonable approach. The results remain far from robust, with only the proximity measure yielding any consistent results, again indicating at least a weak increase in the likelihood of implementing sunset base on what nearby states are doing.

Shughart and Tollison (1985) use two unique measures regarding the state legislature as they attempt to explain the dissemination of corporate chartering laws; legislative size and the ratio of house size to senate size. The size of the legislature could have two possible effects. First, a large legislature may face a higher cost to passing laws simply from the simple logistics of working with a larger body of individuals, meaning that these states would have a lower likelihood of adopting sunset laws. Conversely, the increase in size also creates greater opportunity for lobbyist to capture votes at a low cost, leading to an increase in the adoption of new programs if these programs have an active

sponsor, as sunset laws did with Common Cause. A higher ratio of house to senate members likely increases the cost to special interests in promoting a bill. If the marginal cost of obtaining votes increases at an increasing rate, the extra expense of obtaining a large number of votes in a large house outweighs the savings from the smaller senate body. The wider the disparity, the stronger the effect is expected to be, decreasing the likelihood of adopting new laws.

Table 12 looks at the adoption of sunset laws using these measures, and while Shughart and Tollison find that legislative size leads to earlier adoption of corporate chartering laws and greater house-to-senate ratios do appear to slow the adoption of these new laws, I am unable to replicate this result for sunset laws.

CONCLUSION:

Evidence on the effectiveness of the various constitutional and statutory limitations on state government suggests that these institutions do have effects on the size of state government. I find that sunset laws also have an effect on the level of state government expenditures and that it is the intended effect (lower level of spending) despite the fact that this savings comes from an unexpected

source (oversight) rather than the wholesale agency closures envisioned by earlier proponents of these programs.

Sunset laws are only utilized in 30 states. Given the evidence offered above, it is apparent these programs can lower government expenditures and lower the cost of providing government services when properly implemented. Proper implementation means that sunset laws should be implemented more broadly, either universally across all regulatory agencies or universally across all programs but not at the discretion of the sunset agency, as this may allow for too much access for lobbyists who want to keep their program off the sunset docket.

These approaches offer more savings, despite higher costs of implementation, because the savings from these programs appears to be the result of increased management and oversight resulting from the auditing process inherent in sunset reviews. Bureaucrats are employees like any employee in any corporation. Without supervision, wasteful behaviors will be undertaken, resulting in higher costs and lower outputs. Corporations long ago implemented mandatory reviews for all employees in order to attempt to limit this waste. Sunset laws, properly implemented, afford that same benefit to state governments.

Additionally, universal implementation limits access of special interest groups who will try to protect the agencies that serve their interests by removing them from the sunset umbrella. Selective or discretionary implementation provide an additional access point for lobbying activity of this type, leading to rent seeking behavior that increases costs.

APPENDICES

Appendix A

Table A.1: Sunset States – 1981 and 2005

1981 Sunset States		
Comprehensive	Regulatory	Selective
Alabama	Alaska	Nevada
Arizona	Colorado	Pennsylvania
Arkansas	Connecticut	South Dakota
Delaware	Florida	West Virginia
Indiana	Georgia	Wyoming
Louisiana	Hawaii	
Mississippi	Illinois	
Oklahoma	Kansas	
Rhode Island	Maine	
Tennessee	Maryland	
Texas	Montana	
Washington	New Mexico	
Nebraska	North Carolina	
New Hampshire	Oregon	
	South Carolina	
	Utah	
	Vermont	

2005 Sunset States		
Comprehensive	Regulatory	Selective
Alabama	Colorado	Arkansas
Alaska	Georgia	California
Arizona	Hawaii	Connecticut
Delaware	Illinois	Indiana
Florida	Kentucky	Maine
Louisiana	Maryland	Nebraska
Ohio	Missouri	Texas
Tennessee	New Mexico	West Virginia
Utah	Pennsylvania	Vermont
Washington		Virginia
		Oklahoma

Table A.2[22]: Sunset Principles –

First: The programs or agencies covered under the law should automatically terminate on a date certain, unless affirmatively recreated by law.
Second: Termination should be periodic (e.g., every 6 or 8 years) in order to institutionalize the process of reevaluation.
Third: Like all significant innovations, introduction of the Sunset mechanism will be a learning process and should be phased in gradually, beginning with those programs to which it seems most applicable.
Fourth: Programs and agencies in the same policy area should be reviewed simultaneously in order to encourage consolidation and responsible pruning.
Fifth: Consideration by the relevant legislative committees must be preceded by competent and thorough preliminary studies.
Sixth: Existing bodies (e.g., the executive agencies, General Accounting Offices) should undertake the preliminary evaluation work, but their evaluation capacities must be strengthened.
Seventh: Substantial committee reorganization, including adoption of a system of rotation of committee members, is a prerequisite to effective Sunset oversight.
Eighth: In order to facilitate review, the Sunset proposal should establish general criteria to guide the review and evaluation process.
Ninth: Safeguards must be built into the Sunset mechanism to guard against arbitrary termination and to provide for outstanding agency obligations and displaced personnel.
Tenth: Public participation in the form of public access to information and public hearings is an essential part of the Sunset process.

[22] Adams, Sherman, pg 78-79

Table A.3 - History of Sunset Commission Action – Texas – 1979 to 2007

Legislative Session	Agencies Continued	Agencies Abolished Outright	Agencies Abolished & functions transferred	Agencies Consolidated	Agencies Separated	Agencies Reviewed
66th – 1979	12	8	1	4	1	26
67th – 1981	22	2	3	1	0	28
68th – 1983	29	3	0	0	0	32
69th – 1985	24	6	0	0	1	31
70th – 1987	18	1	1	0	0	20
71st – 1989	25	3	3	1	0	30
72nd – 1991	23	3	3	1	0	30
73rd – 1993	27	1	1	2	0	31
74th – 1995	16	0	2	0	0	18
75th – 1997	19	0	2	0	0	21
76th – 1999	22	1	0	2	0	25
77th – 2001	21	1	0	1	0	25*
78th – 2003	23	1	2	0	0	29*
79th – 2005	21	2	3	1	0	29*
80th – 2007	14	1	1	0	0	23*

* Some agencies reviewed were not subject to continuation or abolishment or had their Sunset date removed. Also includes other special reviews and projects.

Source: Sunset Advisory Commission: Guide to the Texas Sunset Process

Table A.4 – Cost and Benefit breakdown for sunset states

	Benefits		Costs	
	Closure	Oversight	Staff/Time	Lobbying
Comprehensive	High	High	High	Low
Regulatory	Low	Med	Med	Low
Selective/Discretionary	High to Med	Low	Low	High

Table A.5 – Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Real State Expenses - General Fund (in millions)	1409	7069.90	9045.42	326.94	76223.63
Real Per Capita State Expenses - General Fund	1409	1297.43	517.34	435.65	3538.58
State Employees - FTE	588	301714.70	316016.70	30266	1805446
Real State and Local Expenses (in millions)	1323	25278.78	33694.05	1445.61	305598.30
Real Personal Income (in billions)	1421	126.50	154.13	7.08	1195.90
Population (in thousands)	1421	5195253	5558492	411530	36000000
Real Federal Funds (in millions)	1323	4.239	5.525	0.409	49.660
Tax and Expenditure Limits	1421	0.410	0.492	0	1
Line Item Veto - Amount	1421	0.842	0.365	0	1
Term Limits	1425	0.641	0.480	0	1
Shared Budget	1421	0.152	0.359	0	1
Supermajority	1421	0.200	0.400	0	1
Sunset	1421	0.517	0.500	0	1
Comprehensive	1421	0.177	0.382	0	1
Regulatory	1421	0.238	0.426	0	1
Selective	1421	0.113	0.316	0	1
Discretionary	1421	0.011	0.102	0	1
Sunrise	1421	0.106	0.308	0	1

Table A.6 – Regression results: Real State and Local Expenditures (in millions) for Model I and II, Real General Fund State Expenditures for Model III and IV

	Model I	Model II	Model III	Model IV
Constant	-3088.592***	-3186.625***	-107.528	-102.687
	(590.391)	(601.045)	(435.377)	(439.894)
Personal Income	152.175***	154.701***	59.595***	58.552***
	(7.228)	(7.385)	(4.046)	(4.126)
Population	-1283.133***	-1327.072***	-374.150***	-356.493***
	(160.474)	(162.748)	(85.808)	(86.102)
Federal Funds	3267.737***	3248.855***	297.520***	308.244***
	(115.42)	(117.176)	(74.229)	(75.045)
Tax and Expenditure Limits	100.44	-57.521	-211.686**	-171.041
	(163.199)	(174.319)	(104.211)	(108.991)
Line Item Veto	28.527	129.437	618.757***	591.540***
	(155.654)	(165.402)	(124.593)	(123.656)
Term Limits	-704.841***	-667.079***	-338.804***	-328.542***
	(190.742)	(190.712)	(112.284)	(113.328)
Shared Budget	-978.095***	-902.403***	-1132.947***	-1183.627***
	(268.469)	(271.356)	(196.234)	(199.301)
Supermajority	1051.706***	892.912***	109.667	203.079
	(232.082)	(241.035)	(151.246)	(165.031)
Initiative and Referendum	-3.142	65.378	-1041.572***	-1114.028***
	(144.584)	(146.388)	(88.563)	(89.155)
Sunset	-184.644		-538.672***	
	(163.52)		(108.432)	
Comprehensive		435.227**		-751.069***
		(214.916)		(162.977)
Regulatory		-259.044		-344.300***
		(160.259)		(102.029)
Selective		-669.331**		-569.057***
		(301.42)		(184.121)
Discretionary		242.654		256.121
		(657.11)		(336.879)
Sunrise	1228.331***	1028.65***	392.599***	375.8343***
	(212.411)	(206.056)	(120.863)	(122.907)
N	1311	1311	1311	1311
R^2	0.993	0.993	.9594	.9596

Note: Year fixed effects utilized in each of the four models, but results are not reported here

Table A.7 – Regression results: First Cycle - Real General Fund State Expenditures

Variable	Model V	Model VI
Constant	-326.07	-314.193
	(438.306)	(435.983)
Personal Income	59.221***	58.343***
	(4.160)	(4.173)
Population	-370.399***	-346.274***
	(88.142)	(87.364)
Federal Funds	306.215***	303.744***
	(74.751)	(73.630)
Tax and Expenditure Limits	-253.741**	-191.71*
	(103.631)	(100.466)
Line Item Veto	659.209***	675.814***
	(129.578)	(130.018)
Term Limits	-402.605***	-418.594***
	(113.707)	(110.943)
Shared Budget	-1185.681***	-1174.426***
	(202.419)	(198.708)
Supermajority	67.269	116.349
	(149.612)	(156.478)
Initiative and Referendum	-1027.561***	-1056.316***
	(88.395)	(88.435)
Sunset - First Cycle	-216.771	
	(149.228)	
Comprehensive - First Cycle		-831.752***
		(291.004)
Regulatory - First Cycle		112.300
		(123.862)
Selective - First Cycle		-83.140
		(223.504)
Discretionary - First Cycle		-447.889
		(418.443)
Sunrise - First Cycle		-125.095
		(394.328)
N	1311	1311
R^2	0.959	0.959

Note: Year fixed effects utilized in each of the four models, but results are not reported here

Table A.8: Regression Results: State Employees (Full-Time Equivalent)

	Model VII	Model VIII
Constant	16014.324***	15891.215***
	(5230.773)	(5579.654)
Personal Income	-266.532	-259.641
	(148.175)	(151.830)
Population	47815.176***	47709.533***
	(4324.877)	(4330.439)
Federal Funds	9436.221***	9363.959***
	(1370.984)	(1429.826)
TEL	-2186.168	-2572.837
	(3074.503)	(3154.834)
Line Item	14162.268***	14307.422***
	(2670.820)	(2971.282)
Term Limits	-17759.135***	-18169.503***
	(5255.725)	(5168.651)
Shared Budget	12980.277	13659.371
	(5715.106)	(6372.924)
Supermajority	-11342.908***	-12347.115***
	(2827.011)	(3494.016)
Initiative and Referendum	-14454.027***	-13871.136***
	(2791.390)	(2928.924)
Sunset	6274.894	
	(4019.054)	
Comprehensive		8868.143**
		(4358.100)
Regulatory		6541.631*
		(3929.014)
Selective		5763.633
		(7197.200)
Discretionary		-324.083
		(4844.665)
Sunrise	2794.765	2244.164
	(3167.832)	(3012.165)
N	490	490
R^2	0.988	0.877

Note: Year fixed effects utilized in each of the four models, but results are not reported here

Table A.9 – Preliminary Hazard regressions. Dependent variable = 1 if year sunset adopted, 0 if no sunset).

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Constant	-3.114	-3.335	-3.244	-3.694	-2.899
	(2.245)	(2.288)	(2.263)	(2.355)	(2.200)
Tax and Expenditure limits	-0.929	-0.885	-0.937	-0.860	-0.945
	(0.767)	(0.755)	(0.749)	(0.753)	(0.736)
Term Limits	1.076	0.888	0.838	0.917	0.811
	(0.666)	(0.626)	(0.615)	(0.627)	(0.609)
Line Item Veto	-1.824	-1.952	-1.715	-1.718	-1.507
	(1.494)	(1.448)	(1.366)	(1.445)	(1.402)
Supermajority	-2.753	-3.275	-3.755	-2.310	-3.972
	(3.681)	(4.442)	(5.174)	(3.287)	(3.781)
Initiative and Referendum	-1.337	-0.027	3.943	-0.861	3.612
	(4.827)	(4.754)	(5.952)	(4.038)	(5.060)
Real General Expenditures	0.00000	0.00000	0.00001	0.00000	0.00000
(in millions)	(0.00001)	(0.00001)	(0.00001)	(0.00001)	(0.00001)
Real Personal Income per capita	0.271	0.243	0.080	0.243	0.066
(in thousands)	(0.349)	(0.301)	(0.242)	(0.344)	(0.233)
Republican Senate	-0.761				
	(0.980)				
Republican House	0.121				
	(0.899)				
Republican Governor	-0.291	-0.488	-0.444	0.189	
	(0.648)	(0.627)	(0.620)	(0.876)	
Nearest Sunset	0.00108*	0.00094	0.00099	0.00103	0.00107
	(0.00064)	(0.00063)	(0.00063)	(0.00064)	(0.00061)
Population Density	-0.0003	-0.00084	-0.00036	-0.00097	-0.00006
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Hazard term	-0.914	-1.038*	-1.025*	-0.933	-0.936
	(0.607)	(0.607)	(0.615)	(0.592)	(0.595)
Republican Legislature		-0.077			
		(1.131)			
Democratic Legislature		0.566			
		(0.990)			
Unified Legislature			0.337		
			(0.924)		
Democratic Legis. and Governor				0.595	
				(0.962)	

NOTE: Because of a lack of variation in some of these variables I was unable to include Republican Legislature and Governor

Table A.10 – Hazard regressions: Alternate Specification - Dependent variable = 1 if year sunset adopted, 0 if no sunset).

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
Constant	-3.489	-3.581	-3.577	-3.555	-3.178
	(2.176)	(2.214)	(2.198)	(2.291)	(2.124)
Tax and Expenditure limits	-0.881	-0.879	-0.900	-0.882	-0.918
	(0.708)	(0.700)	(0.694)	(0.699)	(0.685)
Term Limits	1.176*	0.990	0.988	1.052*	0.935
	(0.659)	(0.623)	(0.620)	(0.633)	(0.612)
Line Item Veto	-1.557	-1.682	-1.568	-1.435	-1.362
	(1.466)	(1.406)	(1.337)	(1.444)	(1.386)
Supermajority	0.691	0.624	0.620	0.483	
	(0.788)	(0.778)	(0.760)	(0.778)	
Initiative and Referendum	0.538	0.633	0.632	0.629	
	(0.751)	(0.729)	(0.728)	(0.723)	
Real Personal Income per	0.170*	0.188*	0.184*	0.177*	0.148
capita (in thousands)	(0.102)	(0.106)	(0.105)	(0.104)	(0.096)
Republican Senate	-0.560				
	(0.958)				
Republican House	0.243				
	(0.899)				
Republican Governor	-0.343	-0.522	-0.517	-0.198	
	(0.646)	(0.625)	(0.624)	(0.909)	
Nearest Sunset	0.00101	0.00086	0.00086	0.00096	0.00098
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Population Density	-0.00043	-0.00095	-0.00077	-0.00097	-0.00038
	(0.0018)	(0.0018)	(0.0017)	(0.00181)	(0.00164)
Hazard term	-1.000*	-1.128*	-1.141*	-1.004*	-1.014*
	(0.604)	(0.608)	(0.611)	(0.589)	(0.581)
Republican Legislature		0.160			
		(1.130)			
Democratic Legislature		0.448			
		(0.984)			
Unified Legislature			0.350		
			(0.927)		

Table A.11 - Hazard regressions: Statutory Limitations Indexed. Dependent variable = 1 if year sunset adopted, 0 if no sunset).

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-4.029**	-3.895**	-3.886**	-4.375**	-3.798**
	(1.759)	(1.930)	(1.927)	(1.954)	(1.717)
Other Limitations	0.191	0.159	0.168	0.163	0.164
	(0.252)	(0.244)	(0.244)	(0.244)	(0.243)
Real Personal Income per	0.080	0.110	0.110	0.111	0.090
capita (in thousands)	(0.097)	(0.098)	(0.098)	(0.097)	(0.093)
Republican Senate	-0.543				
	(0.847)				
Divided Senate	1.885				
	(1.590)				
Republican House	0.291				
	(0.802)				
Republican Governor	-0.279	-0.422	-0.409	0.027	
	(0.615)	(0.599)	(0.598)	(0.811)	
Nearest Sunset	0.00131*	0.00118*	0.00117*	0.0013*	0.00124*
	(0.00069)	(0.00068)	(0.00068)	(0.0007)	(0.00066)
Population Density	-0.00046	-0.00076	-0.00059	-0.0011	-0.00043
	(0.00178)	(0.00178)	(0.00172)	(0.0018)	(0.00168)
Hazard term	-0.839	-0.915	-0.953*	-0.800	-0.905
	(0.583)	(0.581)	(0.575)	(0.573)	(0.563)
Republican Legislature		-0.29			
		(1.014)			
Democratic Legislature		0.031			
		(0.788)			
Unified Legislature			-0.049		
			(0.760)		
Democratic Legis. and Governor				0.385	
				(0.841)	

Table A.12 – Hazard regressions: Considering Size of Legislature and House-Senate ratio

Variable	Model 1	Model 2
Constant	-3.435*	-2.927
	(2.120)	(2.592)
Per capita income	0.094	0.204
(in thousands)	(0.094)	(0.105)
Size of Legislature	-0.004	-0.011
	(0.009)	(0.010)
House to Senate ratio	0.189	0.367
	(0.407)	(0.495)
Nearest Sunset	0.00122*	0.00101
	(0.00068)	(0.00063)
Population Density	-0.00068	-0.00046
	(0.00193)	(0.00217)
Hazard function	-0.898	-1.102*
	(0.569)	(0.599)
Other Limitations	0.095	
	(0.277)	
Tax and Expenditure limits		-1.708**
		(0.853)
Term Limits		0.513
		(0.725)
Line Item Veto		-2.074
		(1.603)
Supermajority		0.371
		(0.814)
Initiative and Referendum		0.806
		(0.743)

Appendix B

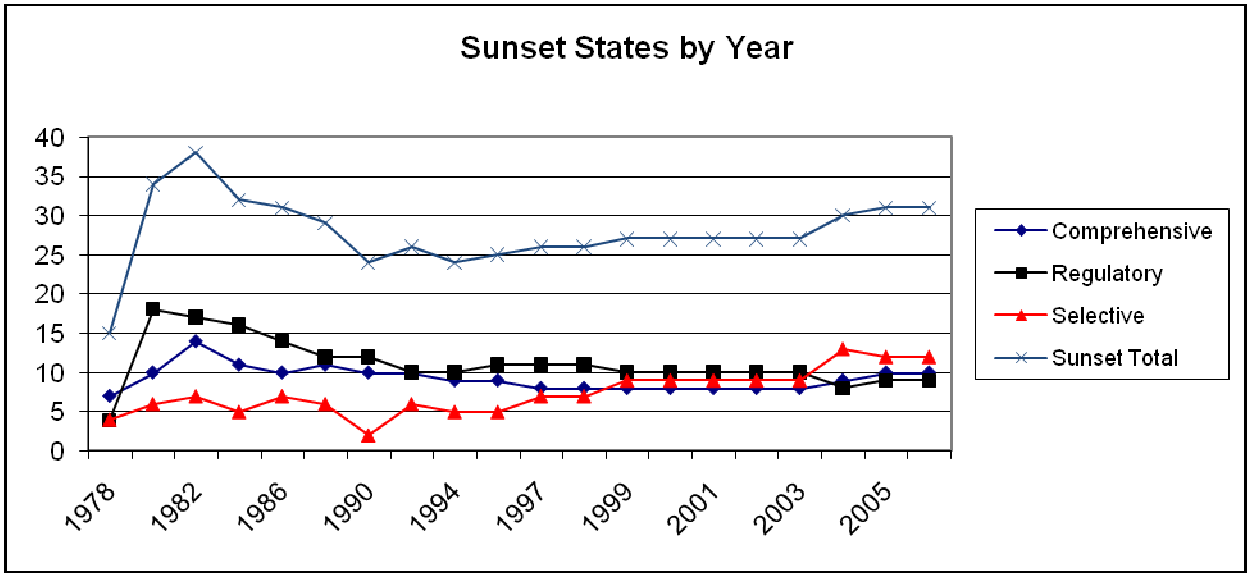

Figure B.1: Sunset State Counts, by type

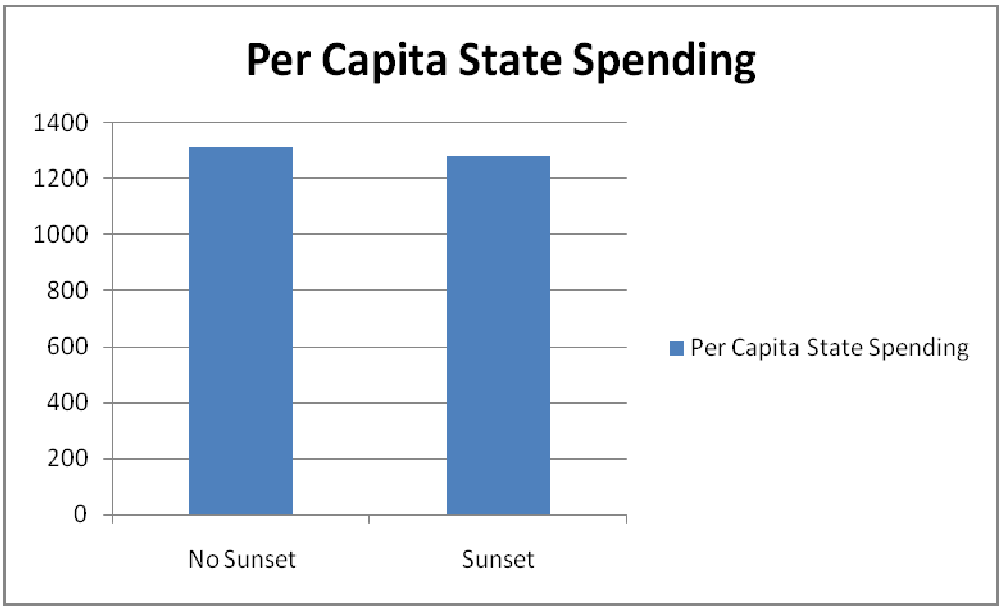

Figure B.2: Per Capita State spending – Sunset vs No Sunset

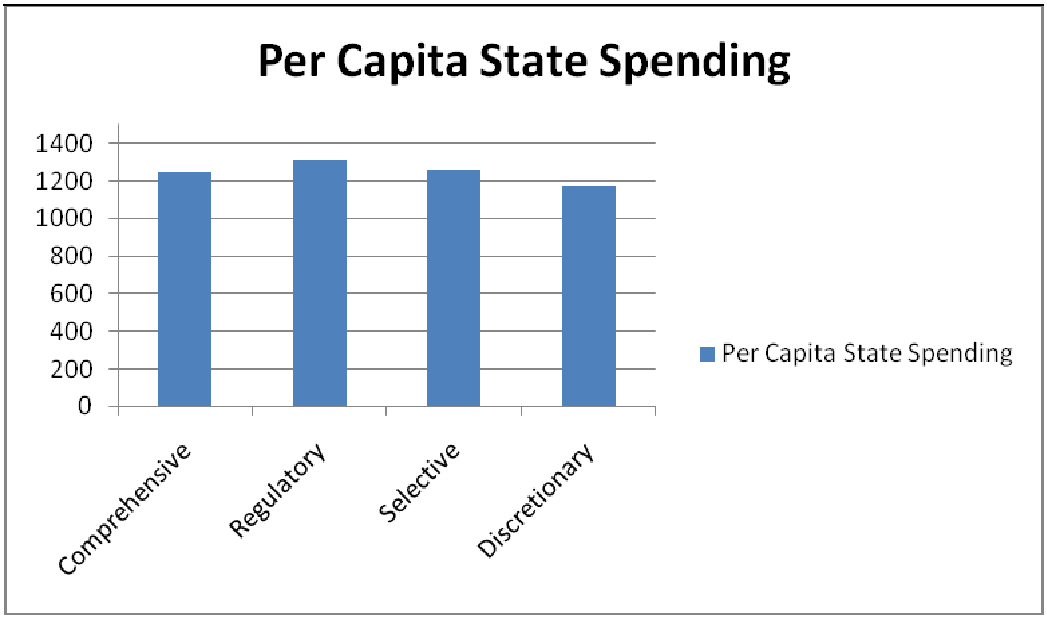

Figure B.3: Per Capita State Spending – By Sunset Type

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